



ICD-10-CM Coding Workbook for General Surgery

Specialty coding guidance for ICD-10-CM

2017

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Case Study #34—Hernia Repair and Appendectomy

Preoperative Diagnosis

Ventral hernia

Postoperative Diagnoses

Right inguinal hernia, indirect; inflamed appendix

Procedures Performed

Right inguinal hernia repair with mesh and plug

Laparoscopic appendectomy

Anesthesia

General endotracheal

Estimated Blood Loss

Minimal

Specimens Removed

Hernia sac and appendix

Indications

The patient is a 23-year-old male patient who presented to the office with what appeared to be a right lower quadrant ventral hernia. Risks, benefits, and alternatives of laparoscopic repair were discussed with the patient, and informed consent was obtained.

Description of Procedure

After adequate general endotracheal anesthesia was obtained, an upper midline skin incision was made. Dissection was carried down through to the fascia, which was elevated with a Kocher clamp. A Veress needle was inserted in the peritoneal cavity and confirmed with saline drop test. A pneumoperitoneum was created without difficulty. A 10 mm port was inserted through this site. Under direct vision, a 5 mm port was placed in the left mid-abdomen, and another 12 mm port was placed in the right upper quadrant. The right lower quadrant was explored, and the patient was noted not to have a ventral hernia but actually have an inguinal hernia. While exploring this area, the appendix was also identified, and it was very thickened and inflamed. Due to this inflammation I felt the appendix needed to be removed. A small amount of mesentery was divided to the base of the appendix. The base of the appendix was then divided with an Endo GIA stapler. The appendix was placed in an Endo Catch bag and brought out through 12 mm trocar site. The staple line was checked and it was intact. There was good hemostasis.

The inguinal hernia needed an open repair as opposed to a laparoscopic repair, so I moved forward to repair the inguinal hernia via an open approach. The trocars were removed. The pneumoperitoneum was released. The larger trocar sites were closed at the fascial level with 0 Vicryl, and the skin was closed on all 3 incisions with running 4-0 Vicryl.

At this point, a small right inguinal skin incision was made. Dissection was carried down through the subcutaneous tissue on the external oblique. The external oblique was opened along the direction of its fibers, and control was gained of the spermatic cord and its contents. Exploration of the cord revealed an indirect hernia sac. This was dissected free carefully from the surrounding structures. It was opened. There were no peritoneal contents in the hernia sac. A Phasix plug was placed along the inguinal canal

and stitched in place with interrupted 2-0 Ethibond suture. A portion of the hernia sac was sent off as a specimen. At this point, a tension-free repair was then completed, again using a Phasix mesh. This was tacked down circumferentially along the inguinal ligament laterally and along transversalis fascia medially using interrupted 2-0 Ethibond. It was sewn in securely around the spermatic cord and its contents. Once this was completed, the external oblique was closed along the direction of its fibers with interrupted 2-0 Ethibond suture. Subcutaneous tissue was reapproximated with 3-0 Vicryl, and the skin was closed with a running 4-0 nylon. Then, 0.5% Marcaine was injected along all incisions. Sterile dressings were applied.

The patient tolerated the procedure well and was sent to recovery in stable condition.

Case Study #34—Hernia Repair and Appendectomy

1. Assign the ICD-10-CM diagnosis code(s) for this patient:

K40.90 **Unilateral inguinal hernia, without obstruction or gangrene, not specified as recurrent**

K37 **Unspecified appendicitis**

This patient originally was diagnosed with a ventral hernia, but upon laparoscopic inspection was noted to have a right inguinal hernia. Also, it was noted during the laparoscopic inspection that the patient had an inflamed appendix, so this is appropriate to report as well.

The hernia can be located via the alphabetic index under the main term "Hernia," subterms "inguinal," "unilateral." It is important with inguinal hernias to note the laterality as it does make a difference from a coding perspective.

For the inflamed appendix, look under the main term "Inflammation" in the alphabetic index, subterm "appendix," which directs the coder to the main term "Appendicitis." The default code under the main term "Appendicitis" is K37, which would be the most appropriate code selection in this instance.

2. A ruptured appendix would be coded as:

a. K35.2 Acute appendicitis with generalized peritonitis

b. K35.3 Acute appendicitis with localized peritonitis

c. K36 Other appendicitis

d. K57.80 Diverticulitis of intestine, part unspecified, with perforation and abscess without bleeding

In this scenario, the appendix had not ruptured, but in some instances that does occur. It is important to know if that makes a difference in the coding under ICD-10-CM. The main term "Rupture" and subterm "appendix" take the coder directly to K35.2, which is a code specific to appendicitis with rupture. It can also be located under the main term "Appendicitis" with the subterm "perforation or rupture." In either case, there is a separate ICD-10-CM code to represent appendicitis with rupture as opposed to those cases without rupture.

3. What would be the appropriate ICD-10-CM code for an initial encounter for erosion of the mesh placed during the above procedure into the patient's large intestine?

- a. T83.728A Exposure of other implanted mesh and other prosthetic materials to surrounding organ or tissue, initial encounter
- b. K91.89 Other postprocedural complications and disorders of digestive system
- c. T85.628A Displacement of other specified internal prosthetic devices, implants and grafts, initial encounter
- d. T83.718A Erosion of other implanted mesh and other prosthetic materials to surrounding organ or tissue, initial encounter**

Erosion of mesh into the nearby intestine would be a complication of the implant. This can be located in the alphabetic index under the main term "Complication" and subterms "prosthetic device or implant," "mesh," "erosion," which refer the coder to T83.718, where the seventh character is added based on which type of encounter the patient is having. In this case the appropriate seventh character would be A for the initial encounter.

4. The difference between an inguinal hernia and a ventral hernia is:

- a. Past surgery that the patient had
- b. Other medical conditions of the patient
- c. Location of the defect causing/allowing the herniation**
- d. The type of graft used to fix it

Hernias are all basically a protrusion of a body structure through tissue. The main difference between an inguinal hernia and a ventral hernia is the location of the defect that is allowing this protrusion to occur. An inguinal hernia is the protrusion of an abdominal organ or tissue through the abdominal peritoneum into the inguinal canal, mainly occurring as a loop of intestine in the inguinal canal. A ventral hernia is a protrusion of abdominal contents through a weakness in the abdominal wall near the midline, sometimes due to a previous surgery. Protrusions due to a previous surgery are typically called incisional hernias.